

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 03/01051

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N27/64

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 69221 A (BARNETT DAVID ;PURVES RANDY (CA); GUEVREMONT ROGER (CA); NAT RES C) 20 September 2001 (2001-09-20) abstract; claim 1; figure 8	44-48
Y	MILLER R A ET AL: "A novel micromachined high-field asymmetric waveform-ion mobility spectrometer" SENSORS AND ACTUATORS B, ELSEVIER SEQUOIA S.A., LAUSANNE, CH, vol. 67, no. 3, 1 September 2000 (2000-09-01), pages 300-306, XP004229036 ISSN: 0925-4005	44-46
A	the whole document ----- -/--	1-43, 47, 48

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

8 October 2003

Date of mailing of the international search report

06/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Klein, M-O

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BARNETT D A ET AL: "Isotope separation using high-field asymmetric waveform ion mobility spectrometry" NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH, SECTION - A: ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, NORTH-HOLLAND PUBLISHING COMPANY. AMSTERDAM, NL, vol. 450, no. 1, 1 August 2000 (2000-08-01), pages 179-185, XP004213583 ISSN: 0168-9002	44-46
A	the whole document	1-43, 47, 48
A	VIEHLAND L A ET AL: "Comparison of high-field ion mobility obtained from drift tubes and a FAIMS apparatus" INTERNATIONAL JOURNAL OF MASS SPECTROMETRY, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 197, no. 1-3, February 2000 (2000-02), pages 123-130, XP004190807 ISSN: 1387-3806 the whole document	1-48
A	US 5 789 745 A (FRYE GREGORY C ET AL) 4 August 1998 (1998-08-04) abstract; figures 1-3	1-48
A	WO 01 69216 A (PURVES RANDY ;GUEVREMONT ROGER (CA); NAT RES COUNCIL CANADA (CA)) 20 September 2001 (2001-09-20) abstract; figures 4-10 page 18-30	1-48

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-43
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-43

Independent claims 1, 21, 28, 39, 43 are not supported by the description as required by Article 6 PCT, as their scope is broader than justified by the description and drawings. The reasons therefor are the following:

The description and the figures relate to an FAIMS apparatus only. This feature however is not present in the claims. Therefore not all of the embodiments falling within the scope of claims 1, 21, 28, 39, 43 would solve the technical problem set by the applicant and the protection that is sought is broader than can be justified by reference to the description or the drawings, in breach of Art. 6 PCT, and hence leaves the skilled person in doubt about the matter for which protection is sought.

Therefore a meaningful search was not possible.

So the subject-matter of claims 1, 21, 28, 39, 43 was search only insofar as it relates to an FAIMS apparatus with the features set forth in these claims.

The search for the dependent claims was restricted for the same reasons and to the extent that they relate to preferred embodiments of this subject-matter.

Furthermore, although independent claims 1, 21, 28, 39, 43 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection, in breach of Art. 6 PCT.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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Information on patent family members

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